

Appl. No. 10/669,331
Amdt. dated June 9, 2006
Reply to Office Action of, January 25, 2006

REMARKS/ARGUMENTS

Independent claim 8 and claims 10-15 depended from claim 8, remain in this application for examination.

Rejection Under 35 U.S.C. §103(a):

Claims 8-13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Stehling et al., in view of McCue, and in view of Wheeler, Jr. and Kozey. Applicant respectfully traverses this rejection.

The primary reference, U.S. Patent No. 4,602,645 to Stehling et al. is assigned to the assignee of this application and discloses a sexless fire hydrant-fire hose connection which is configured without consideration of the 400psi operating pressures that now may be applied to fire hydrants. The Examiner's attention is directed to page 2, line 13 of Applicant's specification. As is set forth in the Background of the Invention, water escaping from couplings under high pressure can injure fire fighting personnel because the escaping water can take the form as discrete high speed streams. Applicant's invention is configured to address these high pressures, whereas the previous sexless coupling of Stehling et al. was not. As is evident from the numerous patents directed to Storz Connectors, this is a very crowded art in which none of the references address Applicant's high-pressure concerns. In Applicant's claimed coupling, the following structure is recited in claim 8;

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... the internal ring portion having a pair of opposed pintle holes therein for receiving the pintle which supports the flapper valve, the pintle holes intersecting the external thread and being closed by unthreaded pintle plugs adjacent to the external thread to prevent water passing around the pintle from passing through the pintle holes to locations beyond the external thread;

and,

... the internal thread of the external ring overlying the unthreaded plugs in the pintle holes to positively retain the unthreaded plugs in place.

Stehling et al. '654 shows a pintle 83 which is received in bores (no numerals) in a coupling member 16, which is a unitary member comprised of one part having an internal thread 50 for coupling with a fire hydrant. Applicant's claimed structure recites two separate elements, i.e., the internally threaded collar portion on which the flapper valve is mounted and the external ring. Stehling et al. '654 only discloses the single coupling member 16. Applicant's pintle is received in pintle holes in one of the members, which pintle holes are covered by the other member. This structure is not shown in Stehling et al. or any other reference.

Since the pintles are placed in different elements, the pintle holes receiving the pintles are in different elements. In Applicant's claimed invention, the pintle holes 150 and 152 are in the internal ring portion 100 which is part of the collar portion that has a thread 50 for threading onto the outlet of a fire hydrant. The collar portion 100 further has an external thread 108, which external thread is intersected by the pintle holes 150 and 152. The plugs 164 and 166 are disposed at the external thread 108 and are covered by the internal thread 106 of the external ring. In Stehling et al, '654

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there is no disclosure of sealing inserts at the intersection of, bores such as Applicant's bores, 150 and 152 with threads because there are no.

The Examiner proposes to cure this deficiency of Stehling et al. by configuring the coupling of Stehling et al. of two parts as taught by McCue '542 and Kozey '444. Yet when this combination is made there is still no teaching of placing the pintle of the flapper valve in opposed bores, which intersect the threads of the two elements.

In order to cure deficiencies with respect to Applicant's plugs 162 and 164 for sealing the pintle 83, the Examiner relies on Wheeler, Jr. 488, however Wheeler, Jr. does not show a pintle that is in a pintle hole which opens through threads. Rather, the pintle 140 of Wheeler, Jr. passes through the pintle hole 141 which opens through the periphery of a non-threaded portion of a ring 22 (see Figs. 1 and 2). The opening of the pintle hole 41 is closed by a threaded setscrew 42 rather than by an unthreaded plug such as Applicant's claimed plugs 162 and 164. The threaded plug 42 is clearly not intersecting an external thread of an inner component, or being abutted by an internal thread on an outer component. Moreover, Wheeler, Jr. uses a threaded plug in the form of a threaded setscrew, whereas Applicant is claiming an unthreaded plug. This is not a distinction without a difference in that an unthreaded plug is deformable under pressure, whereas Wheeler, Jr.'s threaded plug is held in place by threads which interfere with the material of the plug, preventing the plug from flowing or creeping into spaces between opposed threads.

Clearly, for this reason alone, Applicant's claimed invention patentably distinguishes over the

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combination of Stehling et al with Wheeler, Jr. The other secondary references, McCue '542 and Kozey '444 do not cure the deficiencies of the Stehling-Wheeler, Jr. combination because neither of these patents disclose a pintle mounted in an internal ring portion with an external thread, wherein the pintle has a plug portion that is disposed in proximity with the external thread on the internal ring portion and the internal thread on an external ring portion. This is because there is no disclosure at all in Kozey of a flapper valve or pintle for such a valve.

Further, with respect to Kozey et al., Kozey et al. discloses in Fig. 3 a locking pin, however the locking pin is not in combination with an insert of sealing material disposed in a blind bore. While Kozey recognizes that there is a problem with regard to "performance under high pressure", Kozey does not recognize that this problem can occur at a location of a locking pin. The purpose of the locking pin is to prevent rotation of parts, but there is no recognition in Kozey et al. that the locking pin itself presents an opportunity for leakage.

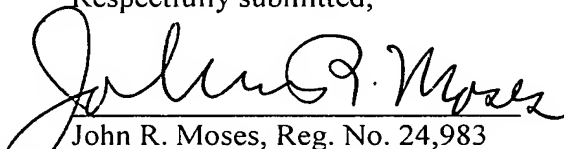
It is respectfully submitted that this is clearly a very crowded art in which a slight improvement results in patentable subject matter. It is respectfully submitted that this is a situation in which patentable subject matter clearly occurs with Applicant's claimed invention. Applicant's small successful company relies heavy on the patent system to protect its contributions from infringers who would readily take those contributions and sell them as their own. The competition is of course welcome to sell what is covered by Applicant's company's expired patents.

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In that this is a full and complete response to the Office Action of January 25, 2006, this application is now in condition for allowance. If the Examiner for any reason feels a personal conference with Applicants' attorneys might expedite prosecution of this application, the Examiner is respectfully requested to telephone the undersigned locally.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,


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